Installation and User Manual

PENTAGRAM Freezone Multi-Panel P7304

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THE PERFECT SIMPLICITY

CONTENTS

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Introduction

Freezone Multi-Panel P7304 is designegned for 5.25 inch drive bay installation. It perfectly combines universal card reader (ie. Compact Flash™ (CF), Secure Digital (SD), IBM® Microdrive, Smart Media™ (SM), Memory Stick (MS), Memory Stick Pro, xD, Mini-SD, RS-MMC, MS-Duo, T-flash, Multi Media Card (MMC), Micro SD) with front panel I/O ports (Audio, USB, IEEE1394, eSATA).

System requirements

- PC with an available 5.25" drive bay,
- Available onboard USB and SATA connectors,
- Available external IEEE1394 and audio ports (Line Out, Line In, Mic),
- Operating system Windows 98 SE or newer

Box contents

- PENTAGRAM Freezone Multi-Panel P7304
- Card reader drivers CD with manual
- Quick Installation Guide
- Mounting screws

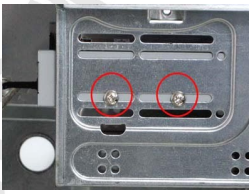
Installation

Mounting in 5,25” drive bay

Caution:

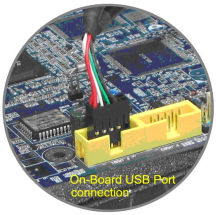
- *Electrostatic discharge can damage electronic components. Be sure you are properly grounded before installation process.*
- *Do not touch any electronic components. Handle this produtc by the plastic parts.*
- *In case of problems during installation, refer to your computer hardware manual for additional instructions.*

1. Turn your computer off and disconnect the power cord before installing this product.
2. Remove the cover of your computer.
3. Remove 5.25" drive bay plastic cover on PC front panel.
4. Connect cables to Multi-Panel (you can find more information on cable connection in next section) and put device with cables into the 5.25" drive bay.
5. Mount Multi-Panel firmly in both tracks of drive bay with four screws that are supplied with the package.

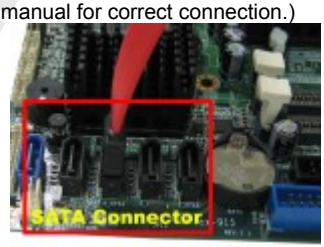


6. Locate an available PCI expansion slot and remove the bracket cover.
7. Install bracket with external audio and IEEE1394 cables, they are all for the outside I/O connection.

8. Connect internal on-board USB and SATA in correct connector. (Please refer to the following photos and your computer’s hardware manual for correct connection.)



USB



SATA

9. When you complete above installation, please check all cables are plugged firmly.
10. Replace computer's cover and reconnect the power cord.

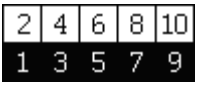
Cables / connectors

Caution:

- *In case of problems during cable connection, refer to your mainboard (controller) hardware manual for additional connecting instructions. Improper cable connection may damage Multi-Panel and/or mainboard (controller)!*
- *Each housing connector pin1 is marked with a ▲ symbol.*

Card reader (small circuit board)

Card reader USB cable – Both ends of this cable are 5-pin connectors. Connect one end to JP1 connector on small PCB and second end to free USB connector on mainboard (controller).



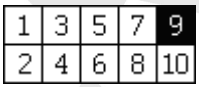
JP1 connector

Pin	Function	Pin	Function	Color
9	not connected	10	VCC	red
7	not connected	8	Data -	white
5	not connected	6	Data +	green
3	not connected	4	GND	black
1	not connected	2	not connected	

I/O pass through (large circuit board)

IEEE1394 (FireWire) cable – Ended with 10-pin connector on one side and standard 6-pin FireWire plug on another. Connect 10-pin connector to JP1 connector on large PCB (line up stopper on cable connector with empty place in PCB connector) and second end plug into free external IEEE1394 (FireWire) port.

USB Cable – Both ends of this cable are 10-pin connectors. Connect one end to JP2 connector on large PCB and second end to free USB connector on mainboard (controller). Line up stoppers on cable connectors with empty place in PCB/mainboard connector.



JP2 connector

Pin	Function	Pin	Function	Color
1	VCC	2	VCC	red
3	Data2 -	4	Data1 -	white
5	Data2 +	6	Data1 +	green
7	GND	8	GND	black
9	not connected	10	not connected	

Audio Cable – Ended with 16-pin connector on one side and 3 standard jack plugs (3.5mm) on another. Connect 16-pin connector to JP3 connector on large PCB and plug jacks to corresponding audio sockets of your soundcard (stand alone or motherboard integrated).

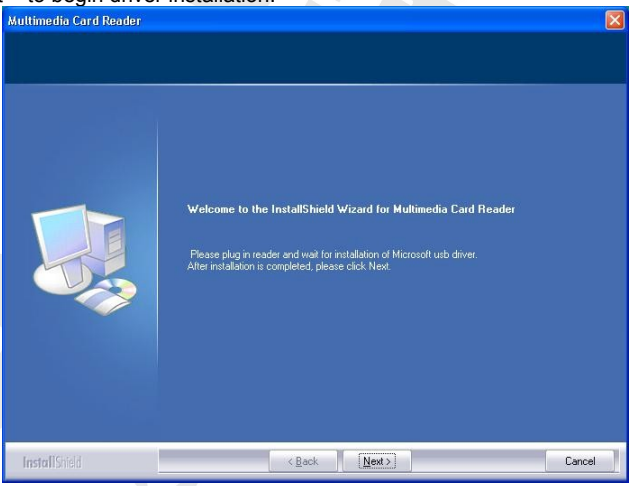
Plug/socket	Plug/socket color	Connected device
Mic	pink	microphone
Line Out	green	speakers or headphones
Line In	blue	additional sounde source (ie. portable player)

SATA Cable – Standard SATA cable ended on both ends with SATA plugs. One end connect to JP4 connector on large PCB and second to free SATA connector on mainboard (controller).

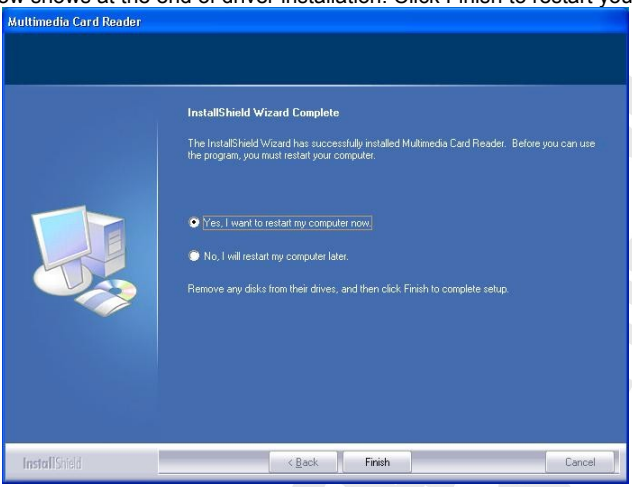
Card reader driver installation

Driver installation is required in Windows 98 and 98 SE, and recommended in rest of the operating systems. Follow these steps to install card reader driver (Windows XP example).

1. Close all open applications.
2. Insert driver CD into CD/DVD drive.
3. In Explorer browse to CD and open Driver folder.
4. Run setup.exe file.
5. Click Next > to begin driver installation.



6. This window shows at the end of driver installation. Click Finish to restart your computer.



7. After reboot your system will detect card reader controller and display four media icons in My Computer window. When system detects an media card in card slot, the gray media icon will change to a color icon.

icons without inserted card icons with inserted CF card

Note:

The data bus of Micro-SD media slot is shared with MMC/SD slot, so you can only find four media icons on display. For this reason the card reader can only accept either MMC/ SD or Micro-SD media card at the same time, and they will be recognizable by the same MMC/SD icon.

Using card reader

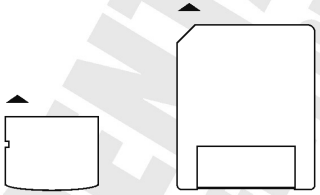
This card reader module provides five media slots for different types of media cards application. You must load each media card in correct slot and do not attempt to insert the card in reverse direction by force. It may damage your card or card reader slot by incorrect loading. Please read this section thoroughly before using it. The Card Reader can accept most popular small form factor media cards directly without any media adapter.

Note:

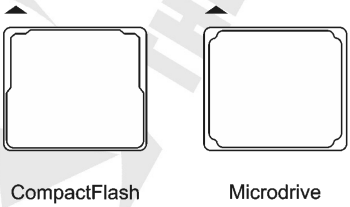
- *The data bus of Micro-SD media slot is shared with MMC/SD slot. For this reason the card reader can only accept either MMC/ SD or Micro-SD media card at the same time, and they will be recognizable by the same MMC/SD icon.*
- *All gold contact area of media memory cards must be downward when you are loading into each slot except mini SD is upward.*

Inserting card to reader

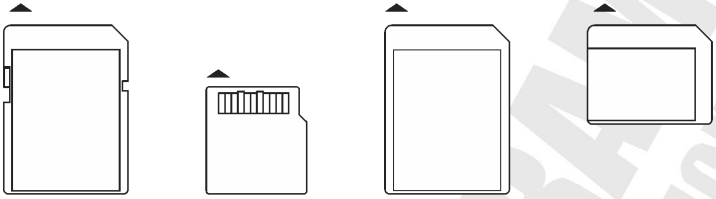
1. **SM/XD slot** – supports *SmartMedia* or *xD* cards.



2. **CF/MD slot** – supports *CompactFlash* type *I* and *II* or *Microdrive* cards.

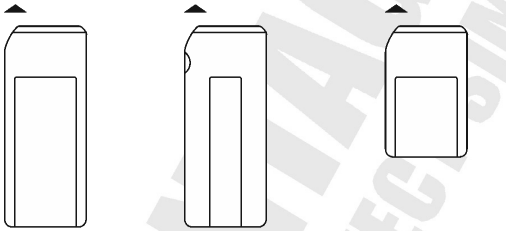


3. **Slot SD/MMC/Mini SD/RS-MMC** – supports *SecureDigital*, *miniSecureDigital*, *MultiMediaCard* or *ReducedSize- MultiMediaCard* cards. Remember that gold contact area of miniSD card must face up.



SD miniSD MMC RS-MMC

4. **Slot MS/DUO** – supports *MemoryStick*, *MemoryStick Pro* or *MemoryStick Duo* cards.



MemoryStick MemoryStick Pro MemoryStick Duo

5. **Slot MICRO SD** – supports *MicroSecureDigital* cards (also known as *TransFlash*).

Micro SD

Indicator

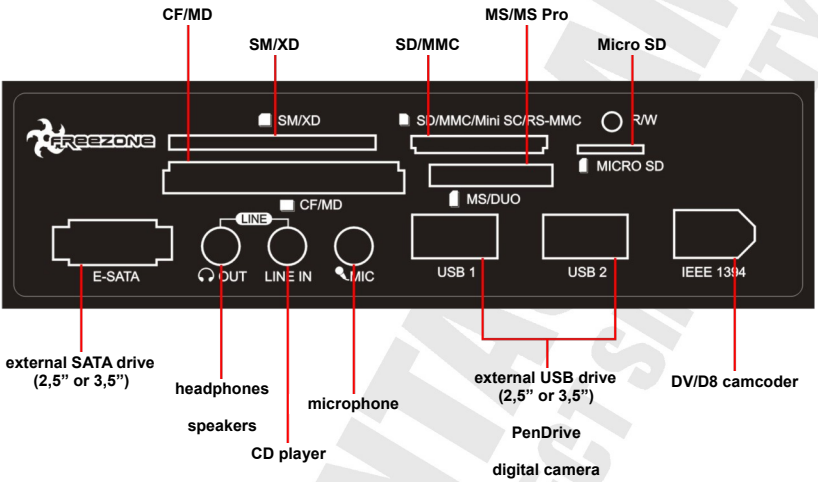
The card reader provides a R/W (read /write) status indicator for card slot diagnosis:

- **off** – no card in slot;
- **on** – memory card detected in slot;
- **blinking** – data transfer between PC and memory card.

Caution:

Please do not remove any memory card while data is transmitting between PC and card reader or when R/W status LED is flashing, it may result your computer to crash and the lost of valuable data.

Device connection diagram



Specification

Note:
Specification may be changed without prior notice.

General	
Dimensions	149x70x1,6mm (W x D x H)
Material	Plastic
Certification	FCC Class B, CE
Directives	RoHS compliant
Card reader	
Chipset	ALCOR AU-6375
Standard compliance	• USB 1.1/2.0 specification • USB mass storage class driver
Supported file system	FAT 12/16/32 / NTFS
Memory card slots	CF/MD, SM/xD, SD/mini SD/MMC, MS/MS-Duo, Micro SD/T-Flash
Supported Media cards	CF Type I, CF Type II, CF Ultra II, Microdrive, Magicstore, SMC, SM ROM, xD, M-series xD, SD, SD Ultra II, mini SD, MMC-I, MMC-II, MMC 4.0,MMC Dual Voltage, RS-MMC, RS-MMC Dual Voltage, RS-MMC 4.0, Trans Flash, Micro SD, MS, MS Select, MS ROM, MS Magic Gate, MS-PRO Magic Gate, MS-DUO Magic Gate, MS-PRO-DUO, etc.
Write protection	Support media card manual lock
Indicators	One LED – card detected/data access
Interface types	USB 5-pin housing type
Cable lenght	Internal USB cable – 50cm
Drivers	All Windows versions from 98
PCB dimensions	52x96x1,6mm (W x L x H)
PCB layers	2 layers
OS support	• Windows 98, 98 SE, ME, 2000, XP • Linux OS 2.4.x or higher
I/O board	
eSATA port	1. Pass through eSATA connector 2. Internal cable 50 cm (SATA plugs)
Line Out socket	1. Pass through Line Out connector 2. External cable 100 cm (3.5mm stereo plug)
Line In socket	1. Pass through Line In connector 2. External cable 100 cm (3.5mm stereo plug)
Microphone socket	1. Pass through Microphone connector 2. External cable 100 cm (3.5mm stereo plug)
USB ports	1. Pass through for two USB ports (type A receptacle) 2. Internal cable 50 cm
IEEE1394 (FireWire) Port	1. Pass through IEEE1394 connector 2. External cable 100 cm (IEEE1394 plug)
PCB layers	131x70x1,6mm (W x L x H)
OS support	2 layers